

FRU®

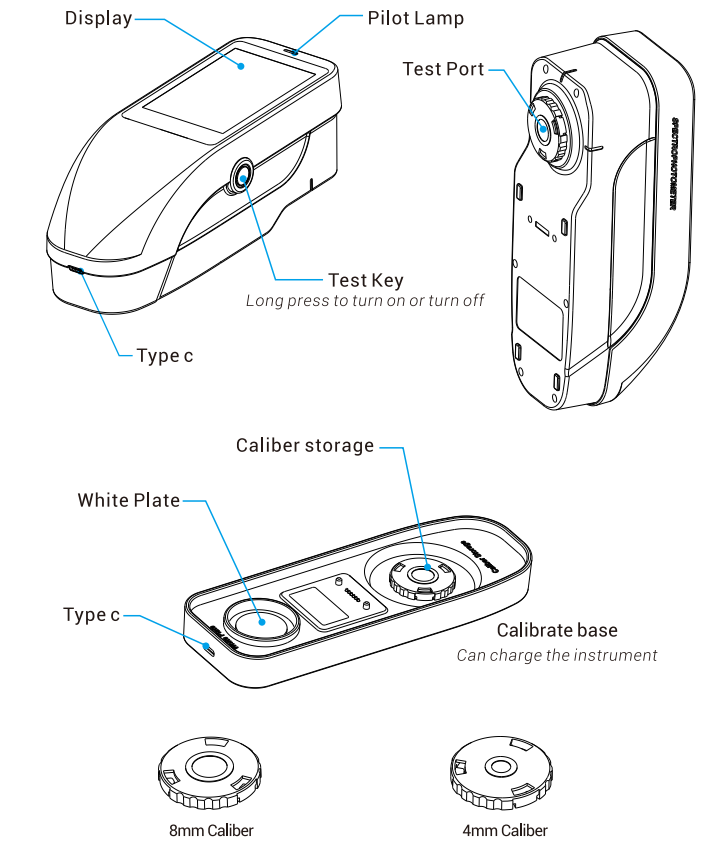
SA Series

Spectrophotometer User Manual

Thank you for purchasing our product. Please read this manual carefully before use and keep it well.Due to product update, please prevail according to the actual situation if discrepancy between the user's manual and the reality.

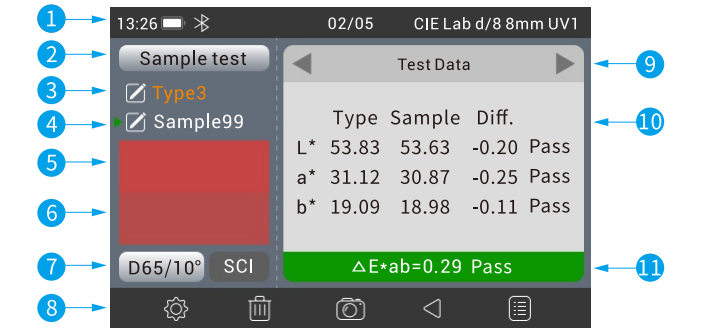


Structure

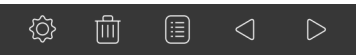


Operation

The instrument will enter the test interface when turned on, as shown in the figure below



- 1 Status bar from left to right:
Time, Battery, Connection status, Average test, Test conditions
- 2 Type/Sample switch button
- 3 Type name, click to Type menu
- 4 Sample name, click to Sample menu
- 5 Type color simulation, click to test Type
- 6 Sample color simulation, click to test Sample
- 7 Left side: Light source/observer angle switch button
Right side: SCI/SCE switch button (if equipped)
- 8 Navigation bar (Professional version), from left to right:
Settings, Delete (or Save), Camera, Records, Type list
- 9 Two arrows switch tabs, and the middle shows the current Tab name
- 10 Tab display area, 4 types of tabs can be switched:
Test data, reflectivity, color coordinates, color bias
- 11 Color difference value and result judgment



Navigation bar (Basic version), from left to right:
Settings, Delete (or Save), Type list, Records, Records



Navigation bar(Records interface) , from left to right:
Return to Test interface, Delete, Set Type, Page forward, Page backward



Pay Attention

- Different model of instruments have different types and numbers of calibers. Please refer to the specifications for details.
- The mark "if equipped" in the manual indicates that this function is only available for specific models, see the specifications.
- Keep the white calibration plate clean and wipe it regularly to avoid abnormal data.

APP



Android/iOS/Windows Support

Scan the QR code to download the ColorCat APP for more functions.



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Specifications

Item	Basic version	Professional version
Model	SA23	SA26
Caliber	Single caliber Φ8mm/Φ4mm Optional	Double caliber Φ8mm/Φ4mm Switchable
SCI/SCE	SCI(Include specular light)	SCI(Include specular light) / SCE(Exclude specular light) Can test at the same time
Light type	Full spectrum LED	Full spectrum LED/ Dual UV
Fix position	Visual	Camera positioning
Repeated accuracy	ΔE*ab≤0.07	ΔE*ab≤0.03
Color space	CIE-Lab、CIE-LCh、Luv、Hunter-Lab、XYZ、Yxy、sRGB、DIN LAB99、DENSITY(A)C,M,Y,K、DENSITY(T)C,M,Y,K、DENSITY(E)C,M,Y,K、DENSITY(M)C,M,Y,K、DENSITY(I)C,M,Y、K、Munsell、Reflectance、Blackness、Yi yellowness、Metamerism、Covering power、Coloring power / strength / dye strength、Color fastness、Taube whiteness、Berger whiteness、TAPPI whiteness、Cross whiteness、Stephens whiteness、Ganz whiteness、Hunter whiteness、ASTM whiteness、CIE whiteness、AATCC whiteness、R457 / iso2470 whiteness、GB / t17644 whiteness	
Color difference formula	ΔE*ab、ΔE*ch、ΔE*uv、ΔE*HunterLab、ΔE*CMC(l:c)、ΔE*94、ΔE*00、ΔE*sRGB、ΔE*BFD、ΔE*FCMII、ΔE*DIN99	
Light source	A、C、D50、D55、D65、D75、F1、F2、F3、F4、F5、F6、F7、F8、F9、F10、F11、F12、CWF、U30、U35、DLF、NBF、TL83、TL84	
Observer angle	10° (CIE1964) /2° (CIE1931)	
Wavelength	Interval:10nm、Range: 400nm-700nm	
Reflectivity	Range: 0-200%、Accuracy: 0.01%	
Sensor	Linear array CMOS@256 pixel	
Geometric	d/8、40mm Integrating sphere	
Calibration	Automatic	
Certificate	Pass the certificate	
Display Solution	0.01	
IIA	ΔE*ab≤0.4 (RAL 12 Average for 12 Color blocks)	
Test speed	1.0s、2.0s(SCI/SCE test at the same time)	
Operation	Capacitive touch screen	
Display	3.5 inch Full color LCD	
Battery	Polymer battery, Continuous test for 10000 times with fully charged	
Interface	Type C / Bluetooth	
Language	简体中文、繁体中文、English	
APP support	Android/iOS/Windows	
Storage	The fuselage stores 8000 pieces of data, and supports app mass storage	
Dimension	181x67x67mm (Without base)	
Weight	342g (Without base)	
Packing List	Instrument, Calibrate base, Type c cable, Charger, User's manual, Warranty card 1 calibres (Basic version) /2 calibres (Professional version)	